



DS-CM-10

ORDERCODE D2183



SHOWELECTRONICS FOR PROFESSIONALS

Congratulations!

You have bought a great, innovative product from DAP Audio.

The DAP Audio DS-CM-10 brings excitement to any venue. Whether you want simple plug-&-play action or a sophisticated show, this product provides the effect you need.

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We design and manufacture professional audio equipment for the entertainment industry.

New products are being launched regularly. We work hard to keep you, our customer, satisfied.

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You can get some of the best quality, best priced products on the market from DAP Audio.

So next time, turn to DAP Audio for more great audio equipment.

Always get the best -- with DAP Audio !

Thank you!



Dap Audio

Dap Audio DS-CM-10™ Product Guide

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WARNING

**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY
BEFORE YOUR INITIAL START-UP!**

Unpacking Instructions

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

Your shipment includes:

- DAP DS-CM-10
- power cable - 2m
- User manual

WARNING



CAUTION!

Keep this system away from rain and moisture!



SAFETY INSTRUCTIONS

Every person involved with the installation, operation and maintenance of this system has to:

- be qualified
- follow the instructions of this manual



**CAUTION! Be careful with your operations.
With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!**



Before you initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the system.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Please consider that damages caused by manual modifications to the system are not subject to warranty.

This system contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the system.

- Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution!

- Never remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- Never leave any cables lying around.
- Do not insert objects into air vents.
- Do not connect this system to a dimmerpack.
- Do not switch the system on and off in short intervals, as this would reduce the system's life.
- Do not open the device and do not modify the device.
- Do not drive the inputs with a signal level bigger, than required to drive the equipment to full output.
- Do not plug Mics into the console (or stagebox) while Phantom Power is on. Also mute the monitor / Pa system when turning Phantom Power on or off. Allow the system to adjust for a couple of seconds, before setting the input gains.
- Only use system indoor, avoid contact with water or other liquids.
- Avoid flames and do not put close to flammable liquids or gases.
- Always disconnect power from the mains, when system is not used. Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.
- Always operate the unit with the AC ground wire connected to the electrical system ground.
- Make sure you don't use the wrong kind of cables or defective cables.
- Make sure that the signals into the mixer are balanced, otherwise hum could be created.
- Make sure you use DI boxes to balance unbalanced signals; All incoming signals should be clear.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power-cord is never crimped or damaged. Check the system and the power-cord from time to time.
- Please turn off the power switch, when changing the power cord or signal cable, or select the input mode switch.
- Extreme frequency boosts in connection with a high input signal level may lead to overdriving your equipment. Should this occur, it is necessary to reduce the input signal level by using the INPUT control.
- To emphasize a frequency range, you don't necessarily have to move its respective control upward; try lowering surrounding frequency ranges instead. This way, you avoid causing the next piece of equipment in your sound path to overdrive. You also preserve valuable dynamic reserve ("headroom")
- Avoid ground loops! Always be sure to connect the power amps and the mixing console to the same electrical circuit to ensure the same phase!
- If system is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the system has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your system. Leave the system switched off until it has reached room temperature.
- If your Dap Audio device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Dap Audio dealer for service.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- For replacement use fuses of same type and rating only.
- WARRANTY: Till one year after date of purchase.

OPERATING DETERMINATIONS

This system is not designed for permanent operation. Consistent operation breaks will ensure that the system will serve you for a long time without defects.

If this system is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.

Any other operation may lead to dangers like short-circuit, burns, electric shock, etc.


You endanger your own safety and the safety of others!

Improper installation can cause serious damage to people and property !

Connection with the mains

Connect the device to the mains with the power-plug.

Always pay attention, that the right color cable is connected to the right place.

International	EU (including UK) From April 2004	North America	Pin
L	Brown	Black	Phase
N	Blue	White	Neutral
	Green/Yellow	Green	Protective Earth

Make sure that the device is always connected properly to earth!

Return Procedure

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail aftersales@highlite.nl and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:

- 1) Your name
- 2) Your address
- 3) Your phone number
- 4) A brief description of the symptoms

Claims

The client has the obligation to check the delivered goods immediately upon delivery for any shortcomings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.

It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.

Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless otherwise agreed in writing.

Complaints against us must be made known in writing or by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.

Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement of which the obligation is resulting.

Description of the device

Features

- 11 inputs
- 3 outputs
- Assignable cross fader
- Gain, bass, mid, treble, pan control for each channel
- Headphone with split function
- Zone output with equalizer

Overview

Front

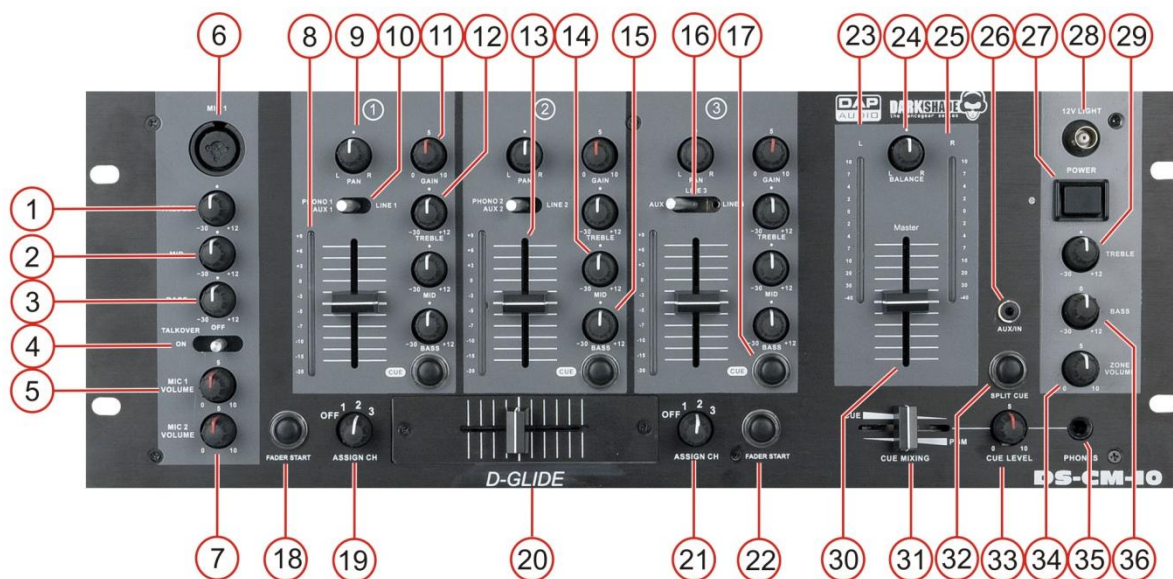


Fig. 1

- | | |
|--|-----------------------------------|
| 1) Mic Channel Treble Control | 19) X-assign A Selector |
| 2) Mic Channel Mid Control | 20) Crossfader |
| 3) Mic Channel Bass Control | 21) X-assign B Selector |
| 4) Talkover Switch | 22) Fader Start B Switch |
| 5) Mic 1 Volume Control | 23) Output L Signal VU-meter |
| 6) Mic Input Balanced Input | 24) Master Balance Control |
| 7) Mic 2 Volume Control | 25) Output R Signal VU-meter |
| 8) Channel VU-meter | 26) Aux Input |
| 9) Channel Panorama Control | 27) Power Switch + LED |
| 10) Channel Input Selector Phono-aux/ Line | 28) BNC 12V Light Connector |
| 11) Channel Gain Control | 29) Zone Treble Control |
| 12) Channel Treble Control | 30) Master Volume Fader |
| 13) Channel Fader | 31) Cue/ PGM Mix Fader |
| 14) Channel Mid Control | 32) Split/ Cue Switch |
| 15) Channel Bass Control | 33) Cue (Headphone) Level Control |
| 16) Channel Input Selector Aux/Line 3/Line 4 | 34) Zone Volume Control |
| 17) Channel Cue Switch | 35) Headphone Output |
| 18) Fader Start A Switch | 36) Zone Bass Control |

Backside

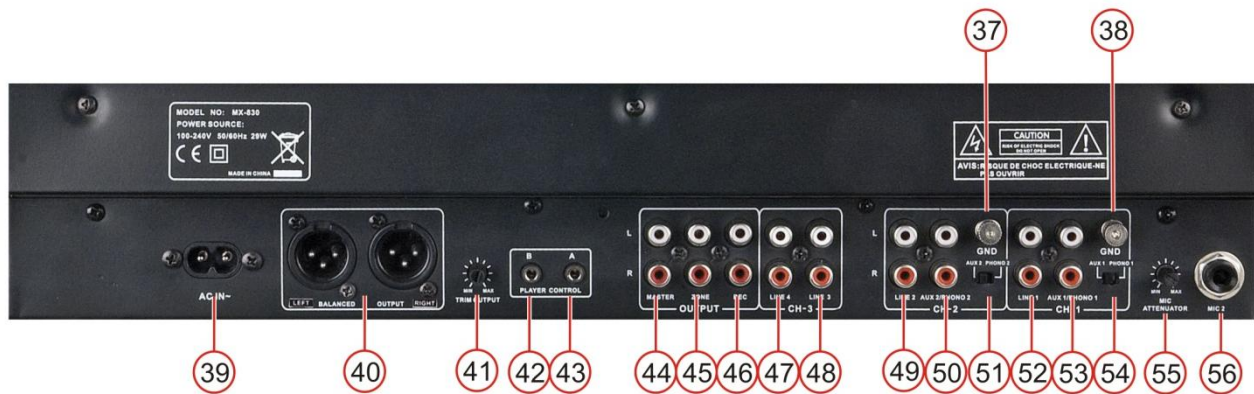


Fig. 2

- | | |
|--------------------------------------|--|
| 37) Channel 2 GND | 47) Channel 3 Line 4 RCA Input |
| 38) Channel 1 GND | 48) Channel 3 Line 3 RCA Input |
| 39) AC Inlet | 49) Channel 2 Line 2 RCA Input |
| 40) Master XLR Balanced Out | 50) Channel 2 Aux 2/Phono 2 RCA Input |
| 41) Output Trim Control | 51) Channel 2 Aux 2/Phono 2 Selector |
| 42) Player Control B | 52) Channel 1 Line 1 RCA Input |
| 43) Player Control A | 53) Channel 1 Aux 1/Phono 1 RCA Input |
| 44) Master RCA Unbalanced Out | 54) Channel 1 Aux 1/Phono 1 Selector |
| 45) Zone RCA Out | 55) Mic Trim Control |
| 46) Rec Out | 56) Mic 2 Jack Unbalanced Input |

Installation

Remove all packing materials from the DS-CM-10. Check that all foam and plastic padding is removed. Connect all cables.

Always disconnect from electric mains power supply before cleaning or servicing.
Damages caused by non-observance are not subject to warranty.

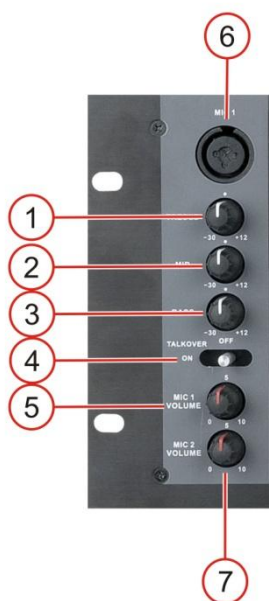


Fig. 3

1/ 2/ 3. Mic Channel EQ Treble/ Mid / Bass

The mic channel is fitted with 3-band EQ. The Treble (**3**) and Bass (**7**) shelving controls have their frequencies fixed at 13 KHz and 70 Hz respectively. The Mid range control (**1**) has a center frequency of 1 kHz. The Bass and Mid bands have up to 23 dB cut and 12 dB boost, the High band has up to 14dB cut and up to 12dB boost all three bands have a centre detent for "OFF". Turning the Equalizer level control to the right amplifies the frequency range, turning to the left attenuates the signal. Minor changes to the Equalizer control usually produce the best results. Try to avoid excessive enhancement of the MID band.

4. Talkover Switch

This switch has two modes:

A. On: With the switch in this position, the Microphone channel is activated and is mixed with channel 1-3.

B. Off: In this position the Microphone channel is deactivated.

C. -14dB: In this position the Microphone channel is activated and The levels of channels 1-3 are attenuated by 14dB.

5. MIC 1 Volume

Controls the volume of the Mic 1 **(6)** input.

6. MIC

Electronically balanced XLR-type input for connecting low impedance microphone. The input has extremely low noise hum. When connecting a microphone make sure that the pin assignment is correct. Always make sure to read the manual of the microphone you want to connect. The XLR- input is not suitable for connecting an additional mixing console, FX- unit, etc. You have to use the LINE- inputs, when connecting this kind of equipment.

Note: When connecting signal sources, please make sure that the corresponding channel faders and the master faders are at minimum settings. Otherwise, unpleasant plug-in noise can occur.

7. MIC 2 Volume

Controls the volume of the Mic 2 **(56)** input.

8. Channel Signal VU Meter

This meter is a multi-step LED; respectively the green LEDs show -40, -30, -20, -10, -7, -4, -2dB. The red LEDs show 0, +3, +4, +7 and +10dB. The accurate level indication allows you to monitor channel level at anytime. If the red LEDs frequently blink or constantly light, the corresponding channel is likely to enter clipping and you have to reduce the input's amplification using the gain control. Make sure that the red LEDs light only briefly during dynamic peaks.

9. PAN

By using the PAN control you can change the input signal's position within the stereo image. When the PAN control is set to center position, the audio signal is equal for both the left and right bus.

10. Selection Switch (Phono Aux / Line)

With this switch you can select between two sets of inputs per channel. Set the **Aux/Phono (51, 54)** selector in phono position if you want to connect a turntable. To the **Aux/Phono (50, 53)** input on the rearpanel.

11. Gain

Use this control to match the connected devices optimally to your DS-CM-10. With the fader set to $\frac{3}{4}$ stroke, adjust the gain with a loud input signal in such a way that the Red LED's on the **Channel VU-meter (8)** do not light up.

12/ 14 / 15. Channel EQ Treble/Mid/Low

Each channel is fitted with 3-band EQ. The Treble **(12)** and Bass **(15)** shelving controls have their frequencies fixed at 12 KHz and 80 Hz respectively. The Mid range control **(14)** has a center frequency of 1 kHz. The Bass band has up to 30 dB cut and 12 dB boost, The Mid band has up to 35 dB cut and 12 dB boost and the High band has up to 14 dB cut and up to 12 dB boost. All three bands have a centre detent for "OFF". Turning the Equalizer level control to the right amplifies the frequency range, turning to the left attenuates the signal. Minor changes to the Equalizer control usually produce the best results. Try to avoid excessive enhancement of the MID band.

13. Channel Fader

Use the faders to control the levels of channel 1-3.

16. Selection Switch (Aux/ Line 3/Line 4)

With this switch you can assign the **Aux (26)**, the **Line 3 (48)** or the **line 4 (47)** input to channel 3.

17. Cue

The Cue button (pre fade listening) is designed to route the channel input to the monitor section independent of the individual channel's volume fader setting. It is possible to assign more than one channel simultaneously to the Cue bus.

18. Fader Start A

This switch activates the fader start function for the channel selected by **X-assign A (19)**.

19. X-assign A

Use this switch to assign the Right-side of the **crossfader (20)** to an input channel (zero is Off).

20. Crossfader

The crossfader allows you to mix evenly from one channel to another channel.

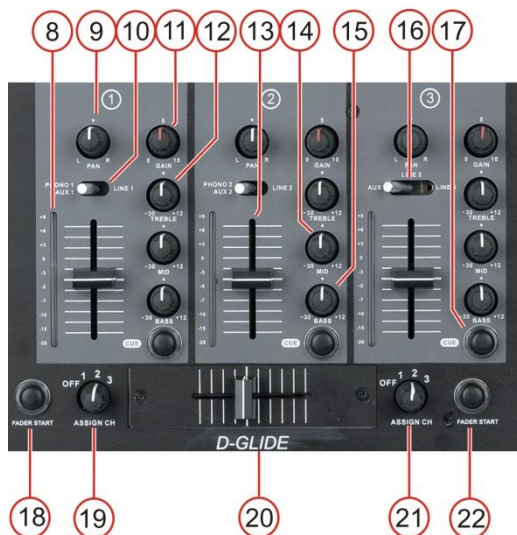


Fig. 4

21. X-assign B

Use this switch to assign the Left-side of the **crossfader (20)** to an input channel (zero is Off).

22. Fader Start B

This switch activates the fader start function for the channel selected by **X-assign B (21)**.

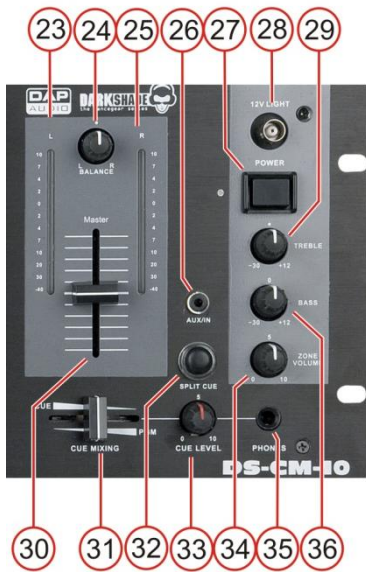


Fig. 5

23. Output L Signal VU Meter

This meter is a multi-step LED; respectively the green LEDs show -40, -30, -20, -10, -7, -4 and -2dB. The red LEDs show +0, +2, +4, +7 and +10dB. The accurate level indication allows you to monitor the output signal level at anytime, and match with other devices.

24. Balance

Use to set the balance between the Left and right master output.

25. Output R Signal VU Meter

This meter is a multi-step LED; respectively the green LEDs show -40, -30, -20, -10, -7, -4 and -2dB. The red LEDs show +0, +2, +4, +7 and +10dB. The accurate level indication allows you to monitor the output signal level at anytime, and match with other devices.

26. Aux 3,5mm jack stereo input

Use to connect a line level device i.e. iPod etc.

27. Power On/ Off Switch + Power LED

Do not supply power before the whole system is set up and connected properly. If switched On, the LED (at the left side of the switch) will light up.

28. Light BNC Connector

For racklight 12V max. 5W. E.g. DAP D60724, D60725.

29/ 36. Zone EQ Treble/Bass

The Zone's Equalizer section allows shaping of the incoming audio signal. The Mic channel is fitted with a 2-band EQ. The **Treble (29)** and **Bass (36)** shelving controls have their frequencies fixed at 12 KHz and 80 Hz respectively. The treble band has up to 15 dB cut and up to 12 dB boost. The bass band has up to 30 dB cut and up to 12 dB boost.

30. Master Fader

This fader allows you to adjust the output signal to the **Master (26)** output.

31. Cue Mixer

Use this control to make a headphone mix between your Cue and your master signal.

32. Split Cue Switch

This switch controls the routing to your headphone. In **split** mode the Cue signal is send to the Left ear of the headphone connected to the **Phones (35)** output. The Program (Master) signal is send to the Right ear of the headphone. In **normal** mode the Cue and Program (master) signal are send to both ears of the headphone.

33. Cue Level

This control allows you to adjust the **Phones (35)** output.

34. Zone Volume

This control allows you to adjust the volume of the **Zone (45)** output.

35. Phones

You can connect a pair of headphones with an impedance of 32 - 600 Ohm to the headphones connector. It is a 6,3mm/ 1/4" TRS socket, wired as Tip=left, Ring=right and sleeve = ground.

Caution: Depending on the type of headphones connected to the Headphones jack, the DS-CM-6 is capable of producing high output levels via the phones output. Therefore, make sure to turn the control all the way to the left (minimum setting) before connecting the headphones. Be aware of the fact that listening to loud sound pressure levels over a longer period of time leads to hearing-damage!

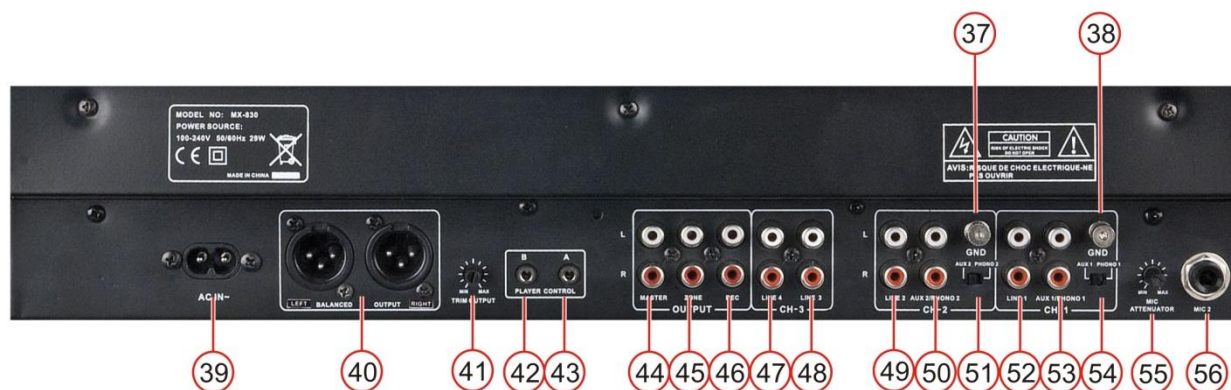


Fig.6

37. GND

Use to connect the ground wire of your turntable.

38. GND

Use to connect the ground wire of your turntable.

39. AC Inlet

This connector is meant for the connection of the supplied main cord. Connect one end of the power cord to the connector, the other end to the mains, then turn on the power switch to operate the unit.

Note: Please make sure that the supply voltage matches the operation voltage before connecting the unit to mains.

40. Master XLR Balanced Out

Use these outputs to connect an amplifier with balanced inputs.

41. Trim Output Control

Use this control to match your master out optimally to your amplifier.

Note: If the control is turned completely to the left, there is no output signal.

42. Fader Start B

1/4" jack for remote fader start.

43. Fader Start A

1/4" jack for remote fader start.

44. Master RCA Unbalanced Out

Use these outputs to connect an amplifier with unbalanced inputs.

45. Zone RCA Unbalanced Out

Use these outputs to connect an amplifier with unbalanced inputs.

46. Record RCA Unbalanced Out

Use these to connect a recording device.

47. Channel 3 Line 4 RCA Input

Use to connect a line level device.

48. Channel 3 Line 3 RCA Input

Use to connect a line level device.

49. Channel 2 Line 2 RCA Input

Use to connect a line level device.

50. Channel 2 Aux 2/ Phono 2 RCA Input

Use to connect either a phono or line level device depending on the position of the Channel 2 **Aux 2/ PHONO 2 (51)** switch.

51. Channel 2 Aux 2/Phono 2 Selector

Used to set the input level for the **Aux 2/ Phono 2 (50)** Input to either phono or line level.

52. Channel 1 Line 1 RCA Input

Use to connect a line level device.

53. Channel 1 Aux 1/ Phono 1 RCA Input

Use to connect either a phono or line level device depending on the position of the Channel 1 **Aux 1/Phono 1 (54)** selector.

54. Channel 1 Aux 1/Phono 1 Selector

Used to set the input level for the **Aux 1/ Phono 1 (53)** Input to either phono or line level.

55. Mic attenuator

This control can be used to attenuate the microphone channel's input level.

56. MIC 2 Jack Unbalanced Input

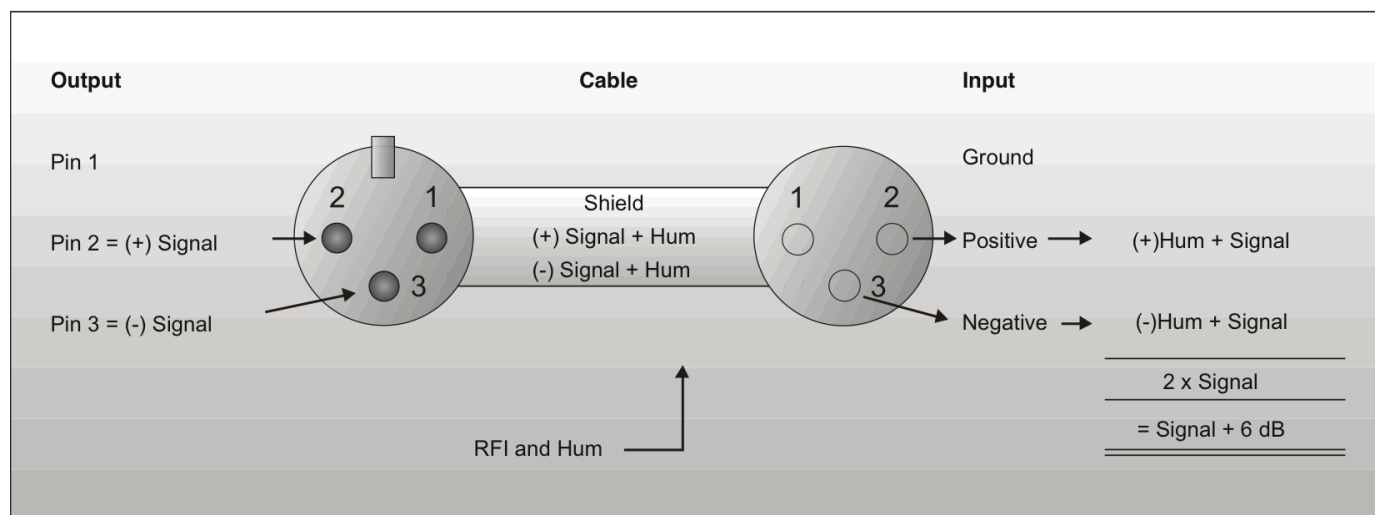
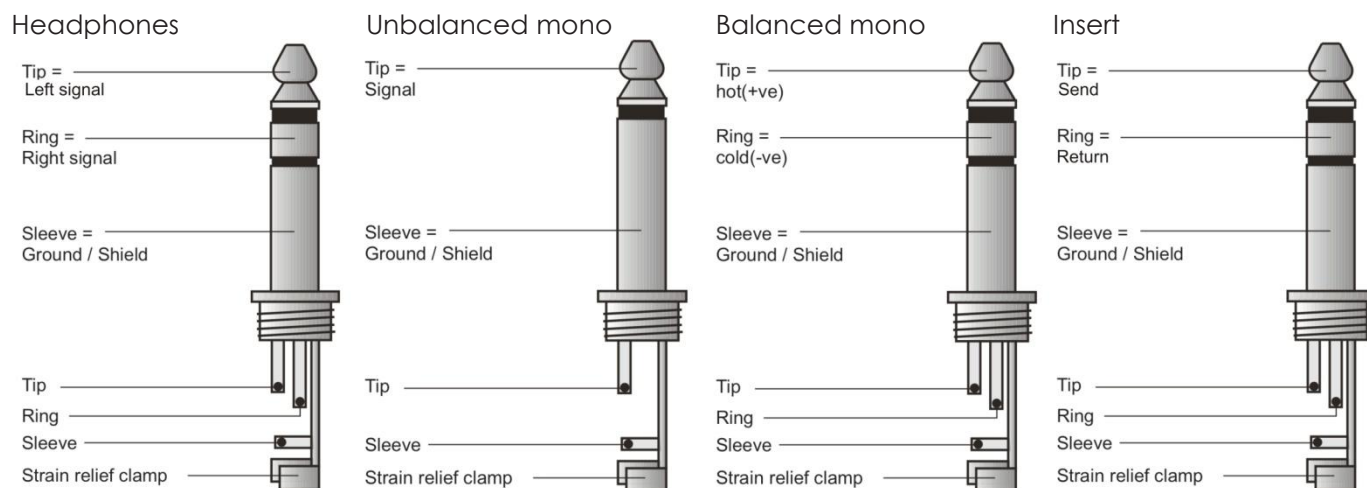
MIC 2 channel 1/4" unbalanced microphone input.

Set Up and Operation

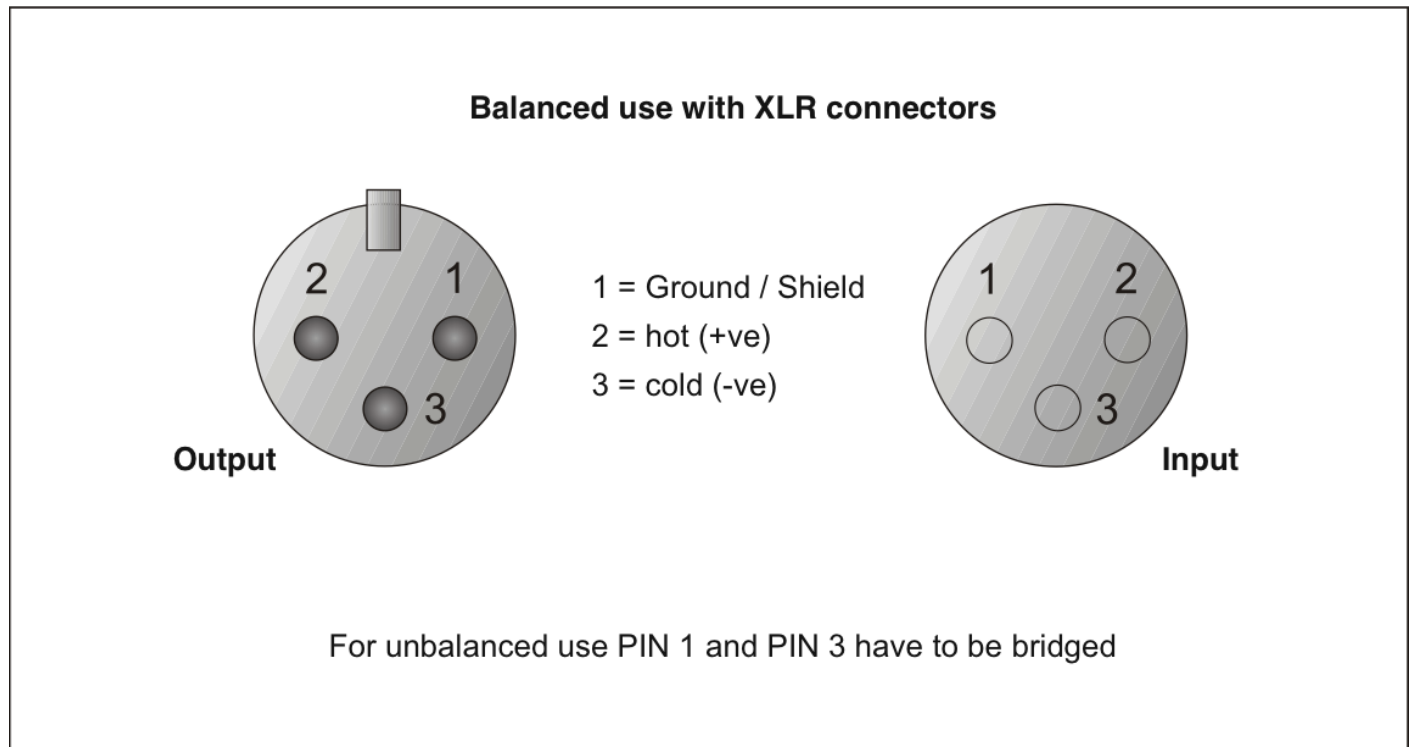
Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa.

Connection Cables

Take care of your cables, always holding them by the connectors and avoiding knots and twists when coiling them: This gives the advantage of increasing their life and reliability. Periodically check your cables. A great number of problems (faulty contacts, ground hum, discharges, etc.) are caused entirely by using unsuitable or faulty cables.



Compensation of interference with balanced connections



Maintenance

The DAP Audio-CD-Player DS-CM-10 requires almost no maintenance. However, you should keep the unit clean. Disconnect the mains power supply, and then wipe the cover with a damp cloth. Do not immerse in liquid. Do not use alcohol or solvents.

Keep connections clean. Disconnect electric power, and then wipe the audio connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

Replacing the crossfader

1. Unscrew the fader **(B)** screws. **Do not touch the innerscrews (C)**. Carefully remove the old crossfader and unplug the cable **(D)**.
2. Plug in the new Crossfader, attach the cable **(D)** and place the new Crossfader back in the mixer.
3. Screw the Crossfader into the mixer using the fader plate screws.
4. Replace the fader knob.

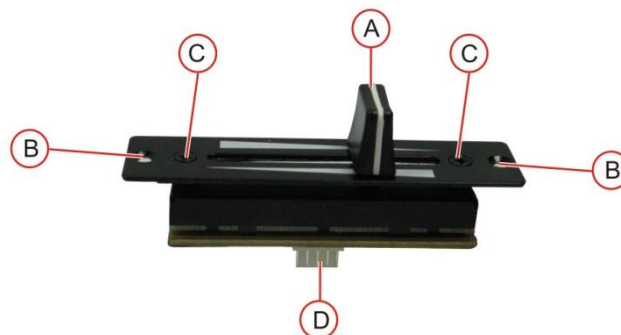


Fig. 7

Troubleshooting

DAP Audio-CD-Player DS-CM-10

This troubleshooting guide is meant to help solve simple problems. If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.

1. If the device does not operate properly, unplug the device.
2. Check power from the wall, all cables, connections, etc.
3. If all of the above appears to be O.K., plug the unit in again.
4. If nothing happens after 30 seconds, unplug the device.
5. Return the device to your DAP Audio dealer.

Product Specification

- Model: DAP Audio DS-CM-10
- Power: 100 – 240 V~, 50/60 Hz, 29W
- Light: BNC, 12 Volt, max. 5W
- Weight: 2.8 kg
- Dimensions (WxHxD): 483 x 180 x 100 mm

Input Sensitivity:

- Microphone 1: -54dBu, 2 mV at 2.2 k Ω
- Microphone 2: -60dBu, 1 mV at 2.2 k Ω
- Phono: -50dBu, 2.5 mV at 47 k Ω at 1 kHz.
- Aux: -14dBu, 155 mV at 47 k Ω
- Line: -14dBu, 155 mV at 47 k Ω

Output Levels:

- Master XLR Out: +6 dBu, 1.55 V at 600 Ω
- Master RCA Out: +0 dBu, 775 mV at 600 Ω
- Zone Out: +0 dBu, 775 mV at 1 k Ω
- Rec Out: -10dBu, 244 mV at 47 k Ω
- Max Master XLR Out: +26 dBu, 15.5 V at 600 Ω
- Max Master Cinch Out: +20 dBu, 7.55 V at 600 Ω
- Headphones Out: 2x 25 mW at 33 Ω
- Distortion THD+N: < 0.03%

Signal to Noise Ratio:

- Line/Aux: > 94 dB(A)
- Phono: > 74 dB(A)
- Mic 1: > 75 dB(A)
- Mic 2: > 71 dB(A)

Channel Tone Controls:

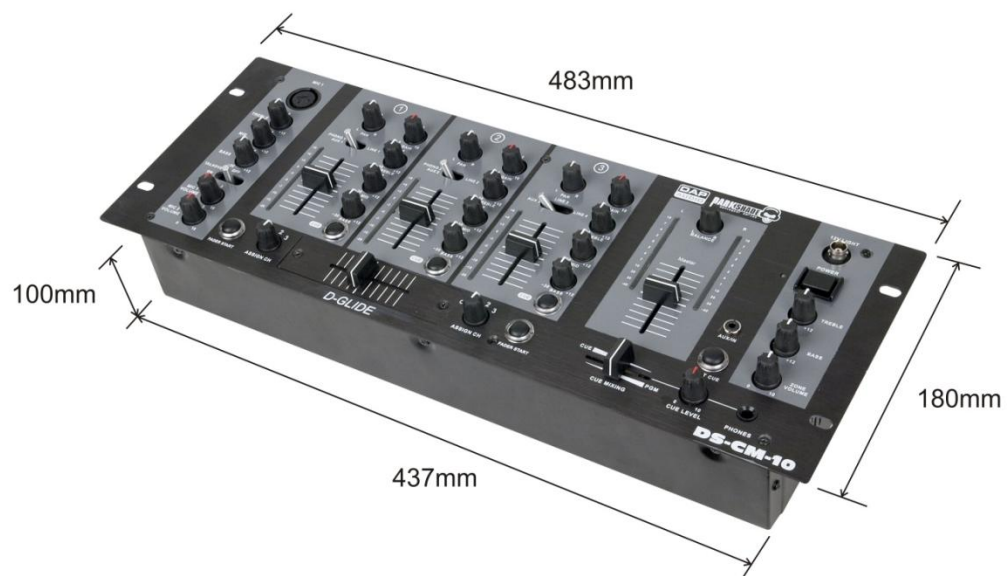
- Bass: +12 dB / -30 dB at 80 Hz
- Mid: +12 dB / -35 dB at 1 kHz
- Treble: +12 dB / -15 dB at 12 kHz

Zone Tone Controls:

- Bass: +12 dB / -30dB at 80 Hz
- Treble: +12 dB / -15dB at 12 kHz

Others:

- Frequency Response: 16 – 32,000 Hz (-1 dB)
- Talkover Attenuation: 14 dB



Design and product specifications are subject to change without prior notice.



Website: www.Dap-audio.info
Email: service@highlite.nl



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